

**Wild Goose Storage Inc.
Presentation at the
Natural Gas Market Outlook 2006-2016**

**Storage Facilities and Expansion Panel
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GAS DEMAND PATTERNS ARE CHANGING DRAMATICALLY

- As discussed in the gas demand panel yesterday, additional independent storage is clearly needed to meet growing and multiplying peak demand in California.
- The NPC forecasts the need for over 100 Bcf of new storage for all of North America by 2005, and an additional 600 Bcf beyond 2005 to meet market growth.
- Gas demand is changing as stable industrial load is displaced by more volatile residential and commercial demand and gas fired generation. This new load produces both a higher winter peak demand and a higher summer generation peak demand.
- This new demand pattern also produces high interday volatility as a result of weather variation, and also produces high intraday demand spikes due to the instantaneous nature of electric generation demand.
- According to the NPC cold winters could stretch storage capacity beyond previous limits, even in the near term. In North America the maximum gas cycled in and out of storage is 2.9 Tcf per year. This pushes the limits of injection/withdrawal capacity, and could cause extreme winter prices, demand destruction, low summer prices and production shut-ins
- Increased peak demand and load volatility requires more flexible storage that can accomplish 2 or 3 cycles in a single year. The capability for 2X or 3X cycling is found mainly in the newer independent storage fields.

STORAGE IS THE MOST EFFICIENT MEANS TO SERVE PEAK DEMANDS

- Increasing storage capacity, including both inventory capacity and injection and withdrawal capacity, has several distinct advantages for California's gas delivery system, including:
- Increased injection of gas into storage during off peak periods results in a higher transmission system load factor;
- Increased deliverability of gas resources located in California results in improved reliability;

- The ability to quickly bring large volumes of gas to market during periods of peak demand or supply disruption helps dampen price volatility;
- Additional storage can meet peak demands more reliably and efficiently than by adding incremental pipeline transmission facilities.

- Storage facilities have less exposure to facility outages than lengthy pipelines with multiple compressor stations
- Deliveries of gas from storage located within California cannot be diverted by upstream markets
- With supplies already located in the state, extra-jurisdictional risks reduced

➤ Additional storage can also help meet several important goals of the CPUC/CEC/CPA Energy Action Plan.

- Reducing the state's vulnerability to the volatile spot market

Storage withdrawals from within California can quickly add supply to the market in the event of an increase in demand or a supply shortage, placing downward pressure on prices without any risk of interruptions in delivery from distant supply basins.

- The “hole in the pipe” on PG&E’s Line 400/401 is an example of this risk. Even during winter peak periods, there are frequent underdeliveries of gas to Malin as competing demands in the Pacific Northwest and the Midwest bid gas away from California. At times this shortfall can reach 25% of the backbone transmission capacity.

- Seeking additional sources of supply

The benefits of new infrastructure projects such as pipelines or LNG terminals are enhanced if combined with adequate, fast-cycling storage sited within California. Storage can smooth out the balancing of deliveries compared to demand, and can assist in blending supplies of different gas quality specifications. Whatever role LNG plays in California’s future resource mix, it will be enhanced by the ability to access adequate storage capacity.

- Increasing access to California gas production

Storage within California is uniquely suited to help bring more California production to market by blending low-Btu native gas with imported gas supplies to meet utility gas specifications.

CALIFORNIA SHOULD ACTIVELY PROMOTE ADDITIONAL INDEPENDENT STORAGE

- Independent Storage can play a vital role in meeting the need for new gas storage capacity.
 - Independents can see the developing fundamentals, and are prepared to assume the risks of anticipatory investment.
 - Independents have no natural market power, and therefore pose no real threat to the competitive marketplace.
- The fundamental distinctions between independent storage and traditional utility storage (which is generally owned by and embedded within a delivery system that does have market power) include the following:
 - no cost of service or guaranteed rate of return;
 - no exclusive franchise area;
 - no captive ratepayers;
 - no ability to subsidize at-risk operations by transferring value from or costs to other utility operations; and
 - no association with gas transmission and therefore no market power.

These differences justify excluding those independents that qualify for market-based rate authority from many burdensome regulations.

BARRIERS TO ADDITIONAL INVESTMENT IN INDEPENDENT STORAGE

- However, there remain barriers to the development of Independent Storage, and, investment in energy infrastructure cannot necessarily be expected to respond to the need. Contributors to the problem include:
 - Lack of available capital due to poor rates of return, and little long-term commitment to secure financing;
 - Decline of merchant energy - a segment with the expertise and willingness to make long-term commitments
 - LDCs are receiving conflicting signals from their regulators: e.g., to hedge or not, unwillingness to require or approve long-term supply commitments, etc.
 - Most storage remains highly regulated re: project approval timelines, market rates, and service flexibility, discouraging investment
 - Continued LDC treatment of Independent Storage as competitors to be bested rather than colleagues serving the same customers
 - ❑ PG&E/Lodi Gas Storage Complaint
 - ❑ SoCalGas opposition to WGSJ Petition for Rulemaking
 - ❑ PG&E Gas Accord proposal to access confidential transactional information from all independent storage providers

- ❑ PG&E Gas Accord proposal to deny independent storage the ability to compete for new balancing or core storage demand.

Significantly, all these issues except the capital market and the decline of merchant energy providers are within the control of regulators, and they can take steps to significantly improve the prospects for additional Independent Storage.

CALIFORNIA’S GROUNDBREAKING 1993 GAS STORAGE POLICY INITIATIVE MUST BE EXTENDED TO ASSURE THE BENEFITS OF INDEPENDENT STORAGE

- The 1993 Gas Storage Decision sought to eliminate barriers to the development of an independent storage market by ensuring that independent storage providers had non-discriminatory access to the utility transmission system and prohibiting LDC discrimination against the customers of independent storage providers.
- After a decade in which two independent storage operators have built 1 Bcf of new storage capacity at no risk to ratepayers, the Gas Storage Service Rules adopted in 1993 require review and expansion in order to facilitate additional investment in independent storage
- The following policies will encourage additional investment in independent storage:
 - As recommended by the NPC, regulators should allow storage operators great flexibility in developing storage infrastructure and offering storage services to meet changing market demand.
 - In terms of market structure, regulators should continue to insist on unbundled storage, transmission and balancing services, to send proper price signals to all market segments, and to allow independent storage providers an opportunity to compete with the storage provided by LDCs.
 - ❑ This policy has still not been implemented in SoCalGas’ service territory—the last portion of North America without fully unbundled intrastate transportation and storage.
 - Regulators should recognize that independent storage providers cannot pass through regulatory expense to customers and will be disproportionately harmed by “regulation as usual”. Light-handed regulation is necessary for at-risk independent storage providers who are much smaller in scale than LDCs.
 - ❑ Even participation in multiple OIRs and OIIs that list “all gas corporations” as respondents creates a substantial financial burden on independent storage providers. Unlike LDCs and certain intervenors, independent storage providers cannot pass through their regulatory costs to captive customers. The

regulators must exercise discretion in determining which proceedings require storage providers' participation.

- Regulators should encourage policies that allow independent storage providers to easily interconnect with California gas production and with electric generation facilities. Simple annual true-ups can ensure that LDCs do not lose any transmission revenue. LDCs should be prevented from attempting to obtain unfair access to independent storage providers' customer and transactional data.
 - ❑ Encouraging California production to interconnect directly with storage will permit blending of low-Btu gas and allow more California production to reach market. This is not possible with the existing LDC infrastructure. Importantly, independent storage providers tend to locate near other gas reserves, as depleted gas reservoirs make excellent storage fields.
 - ❑ If electric generators can easily access gas in storage, it will facilitate ensuring that they have adequate fuel on hand for peak electric generation demand.
 - ❑ WGSF filed a Petition for a Rulemaking with the CPUC to address these issues. Such matters should not be address in a complaint proceeding, but should be considered in quasi-legislative proceedings where the underlying policies, such as improving access to California gas production, can be discussed openly with all stakeholders and with the Commissioners.
- Electric generators should be encouraged/required by regulators to maintain a minimum amount of gas in storage to guard against peak generation demand spikes.
- Independent storage providers should be allowed to compete for core load and for any incremental storage or balancing load.
- LDCs should be required to operate their storage and transmission systems so as to maximize the injection and withdrawal capacity available at all California storage projects, including independent storage providers.
 - ❑ Unlike the rest of North America, California LDCs do not encourage or support hub-to-hub storage transactions, which use off-peak capacity in pipelines to facilitate "instant" transfers of customer gas between storage facilities, creating a much more liquid gas market.